ABSTRACT

The invention relates to a method and devices for short-rime heat treatment and/or quenching of bulk materials and can be used for the chemical, food, wood and other industries. The inventive method for a pulse heat treatment of bulk materials consists in evaporating surface moisture, rapidly heating to a required temperature and in subsequently cooling by supplying particles to a rotating surface whose temperature is greater than 100°C, wherein the contact of particles with the hot surface is carried out by means of centrifugal forces, the time of contact and a pressure force are controlled by modifying the speed of rotation of the hot surface and the particle quenching stage is carried out on a cooling plate by the rapid cooling said particles and collecting a final product in an accumulator. The treatment of moving bulk material particles is carried out on the rotatable cylindrical or conical hot surface on which an excessive moisture evaporating stage and stage for heating to the required temperature are combined. The time of the material displacement along the hot surface by the gravity force are controlled by a friction force which is adjustable by modifying the speed of rotation. A device for carrying out said method is also disclosed.